

AIPA

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **67**
- SRM **6.5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **17.5 liter(s)**
- Trub loss **7 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **27 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **26.2 liter(s)**

Steps

- Temp **60 C**, Time **0 min**
- Temp **64 C**, Time **60 min**
- Temp **71 C**, Time **15 min**
- Temp **76 C**, Time **4 min**

Mash step by step

- Heat up **19.6 liter(s)** of strike water to **66.7C**
- Add grains
- Keep mash **0 min** at **60C**
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **71C**
- Keep mash **4 min** at **76C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **27 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.28 kg (50.1%)	81 %	4
Grain	Pale Ale malt	1.99 kg (30.4%)	80 %	5
Grain	Pszeniczny	0.64 kg (9.8%)	81 %	6
Grain	Wiedeński	0.16 kg (2.4%)	79 %	10
Grain	Monachijski typ I	0.29 kg (4.4%)	79 %	16
Grain	Caramunich Typ II	0.19 kg (2.9%)	73 %	120

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra 2016	30 g	60 min	14.2 %
Boil	Nelson Sauvín 2016	25 g	15 min	11.1 %
Boil	Cascade 2017	25 g	10 min	9 %
Boil	Nelson Sauvín 2016	25 g	5 min	11.1 %
Boil	Amarillo 2017	25 g	5 min	8.9 %
Aroma (end of boil)	Citra 2016	20 g	0 min	14.2 %
Aroma (end of boil)	Cascade 2017	25 g	0 min	9 %

Aroma (end of boil)	Amarillo 2017	25 g	0 min	8.9 %
Dry Hop	Citra 2017	50 g	3 day(s)	12 %
Dry Hop	Amarillo 2017	50 g	3 day(s)	8.9 %
Dry Hop	Mosaic 2017	50 g	3 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	100 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Water Agent	Sól z Epsom (pół łyżeczki)	2 g	Mash	---
Water Agent	Kwas mlekowy 80% (1ml)	1 g	Mash	---